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Fry

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- (54) **CORNER SUPPORT ASSEMBLY**
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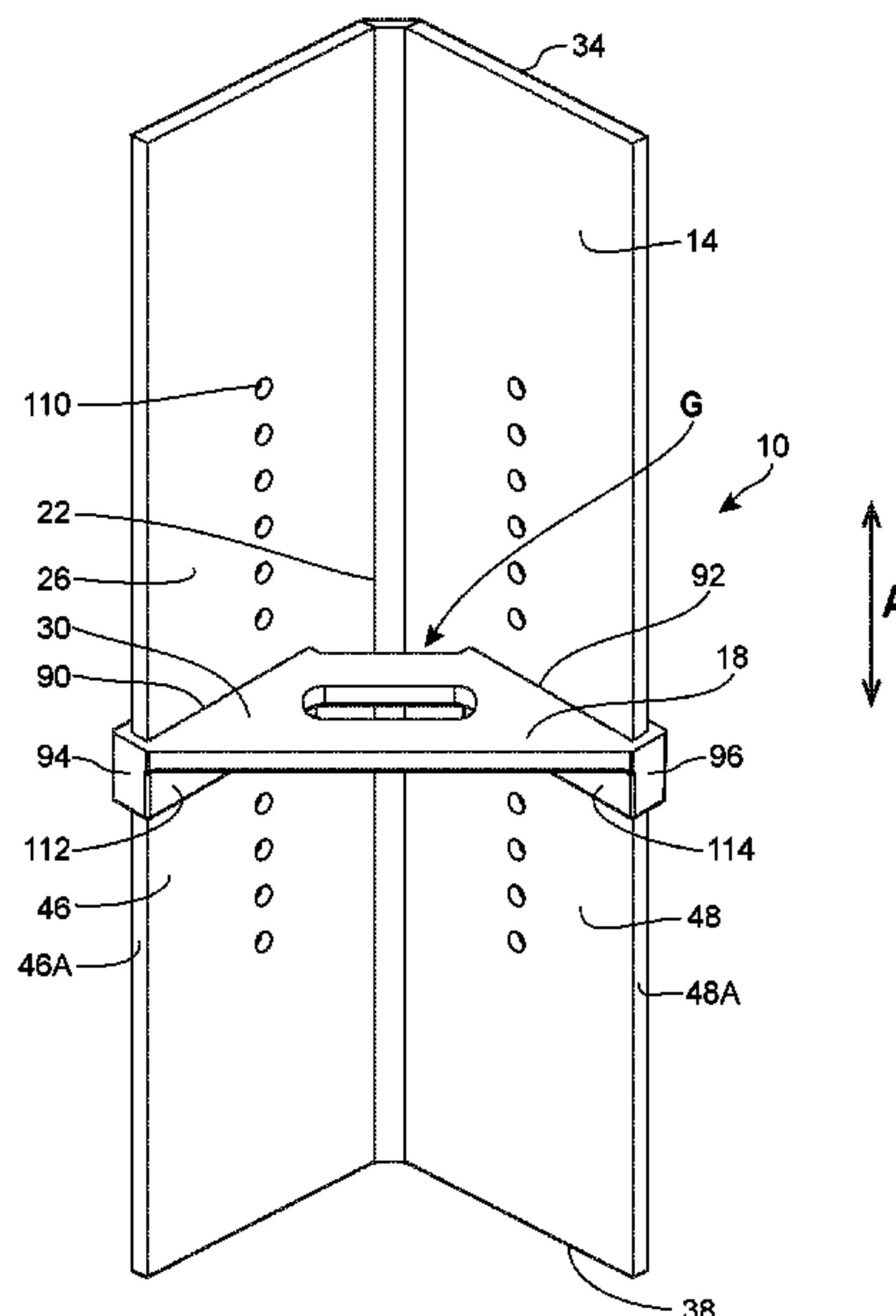
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(57) **ABSTRACT**
A corner support assembly for supporting a stack of con-
tainers includes a bar defining a corner and having a first
end, a second end, an interior surface. A bracket is ope-
ratively coupled to the bar. The bracket includes a front end
spaced away from the bar and a back end facing the interior
surface of the bar. The bracket is disposed between the first
end and the second end of the bar and oriented substantially
perpendicular to the bar.

23 Claims, 7 Drawing Sheets



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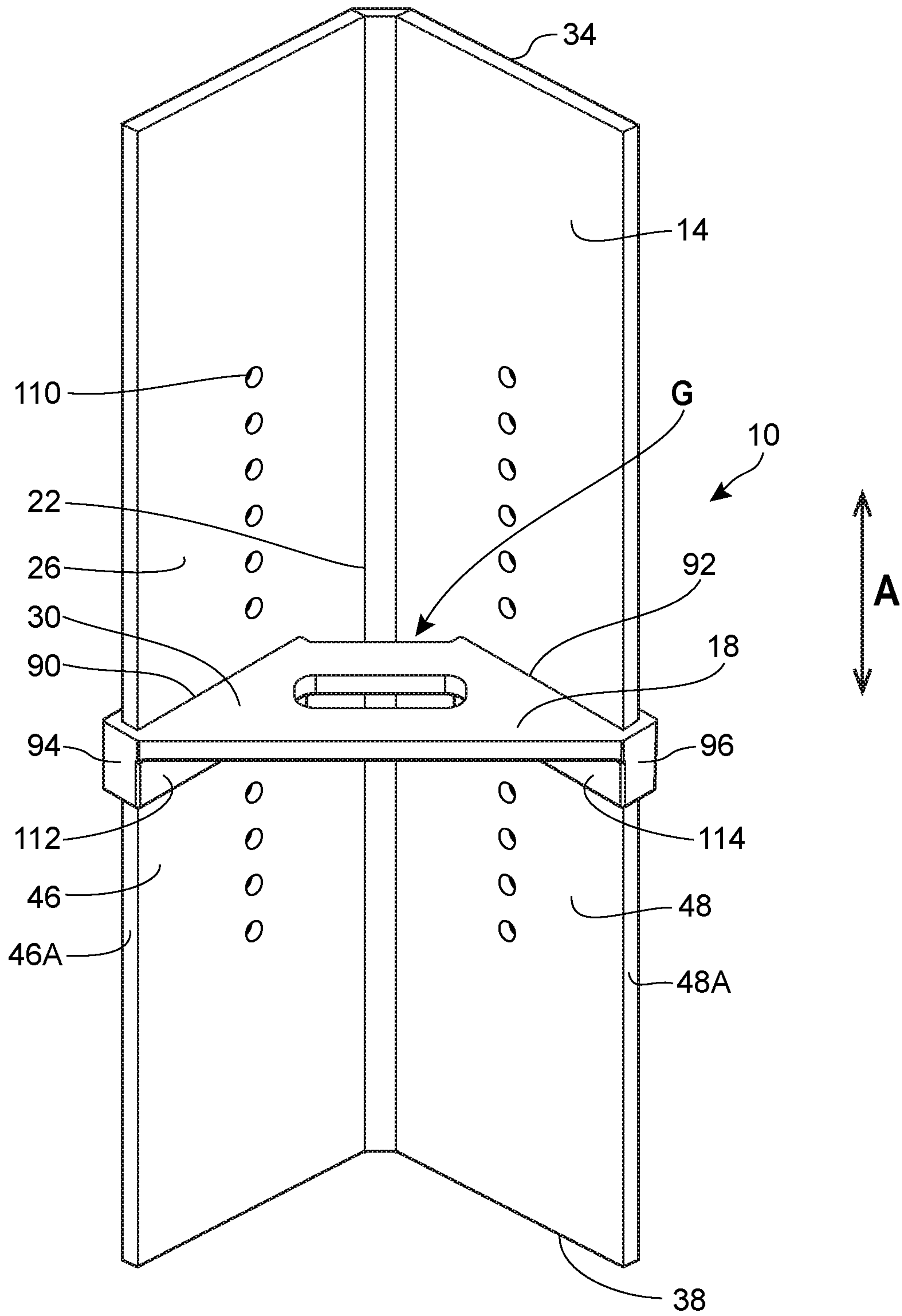


FIG. 1

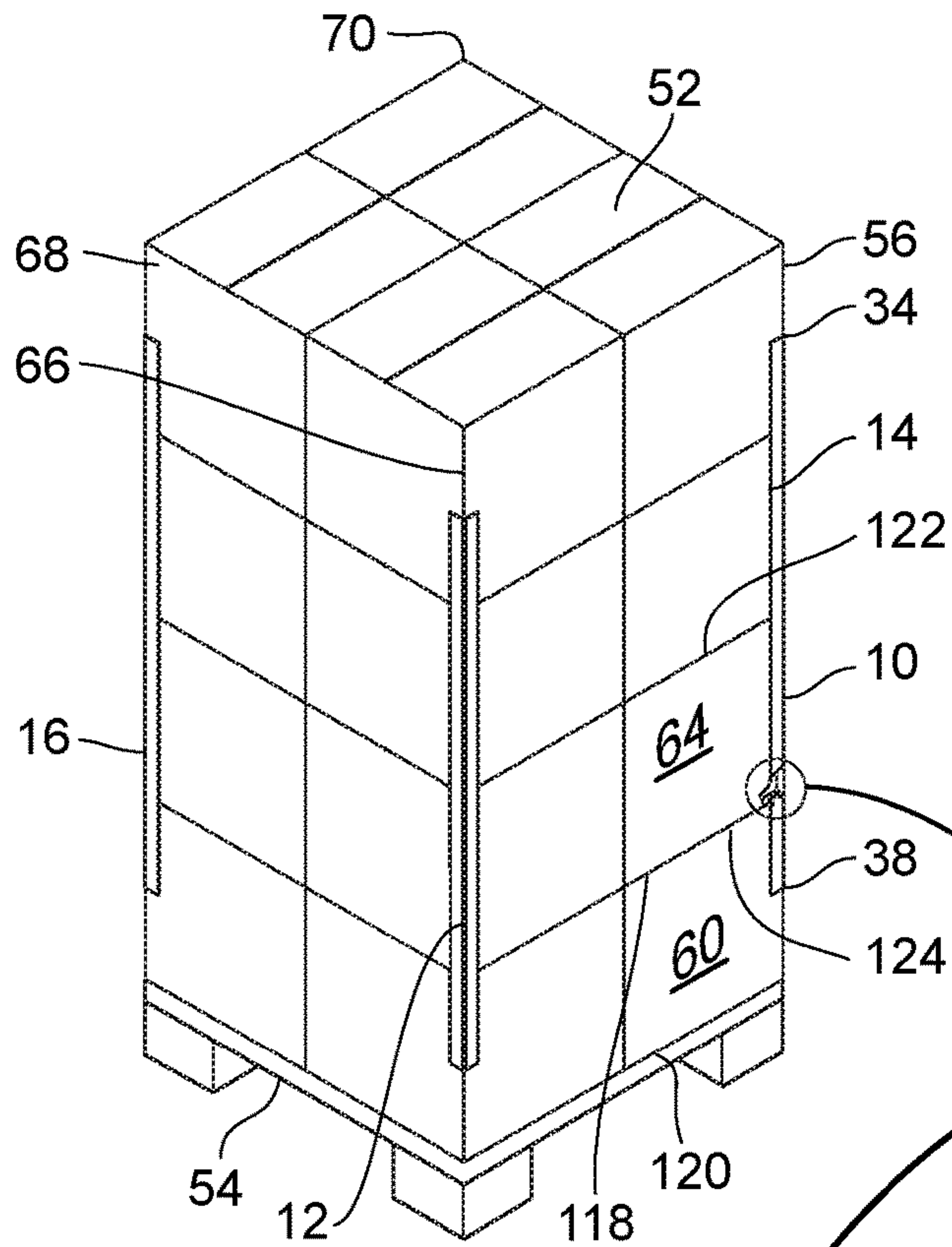
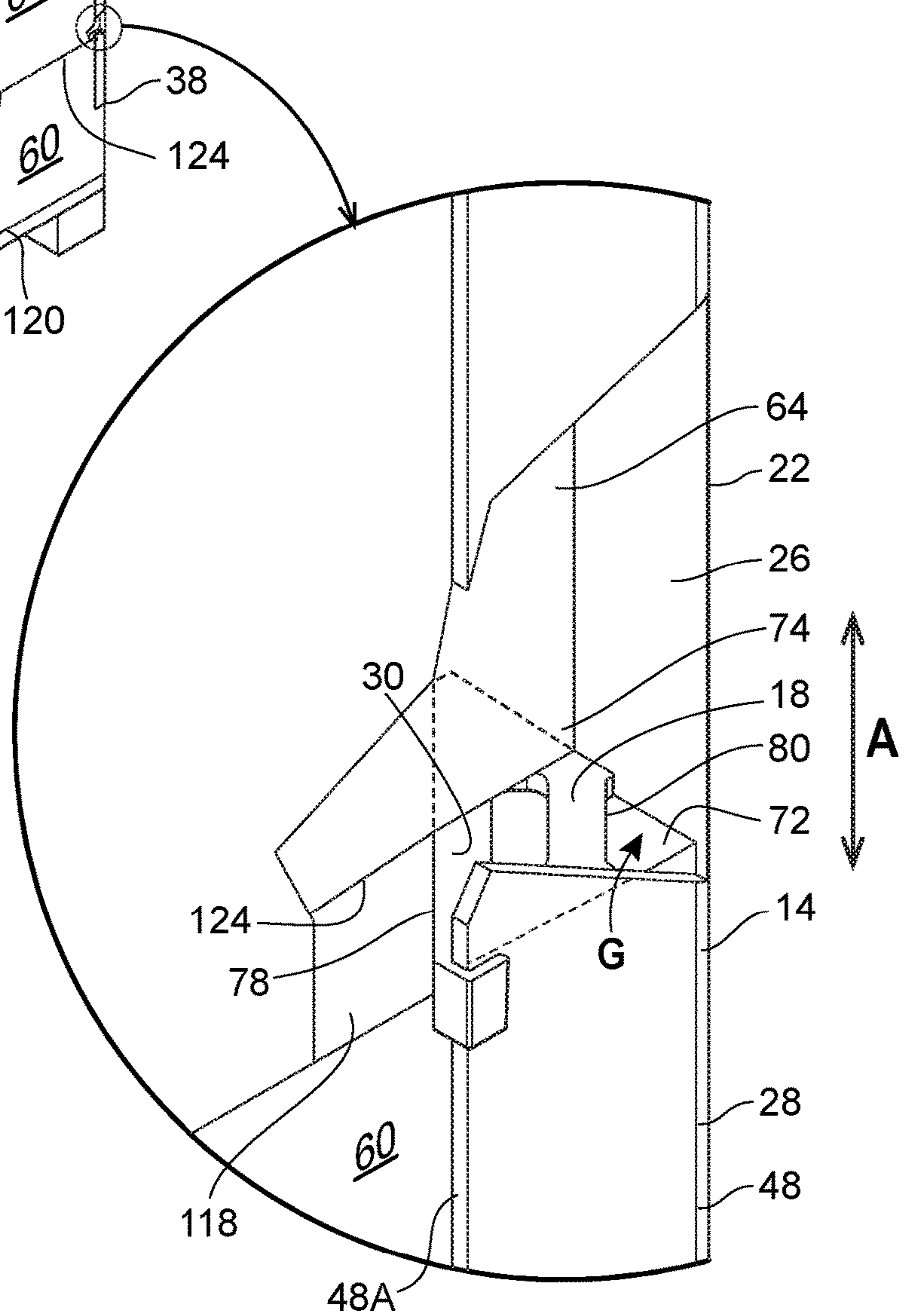


FIG. 2

FIG. 3



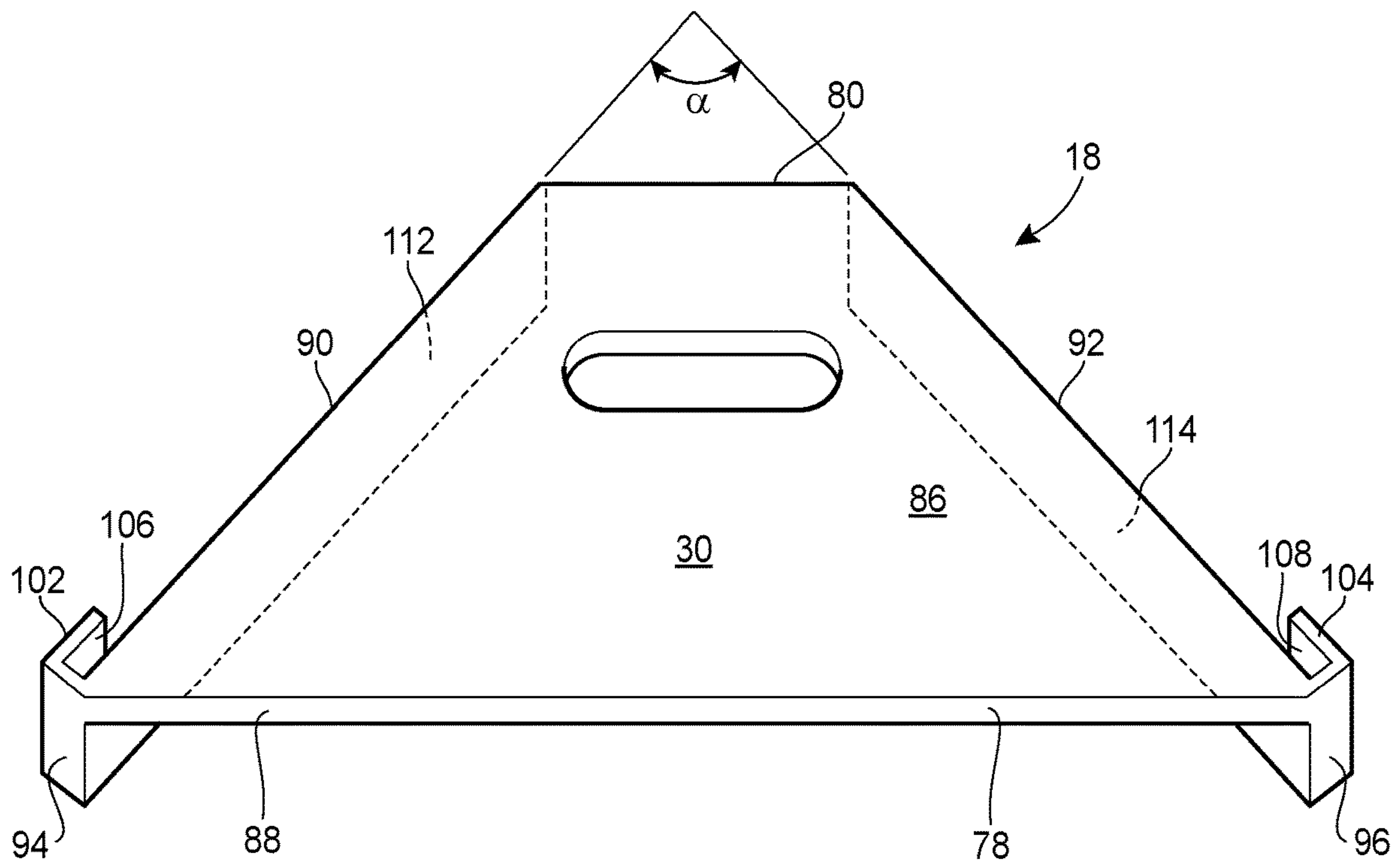


FIG. 4

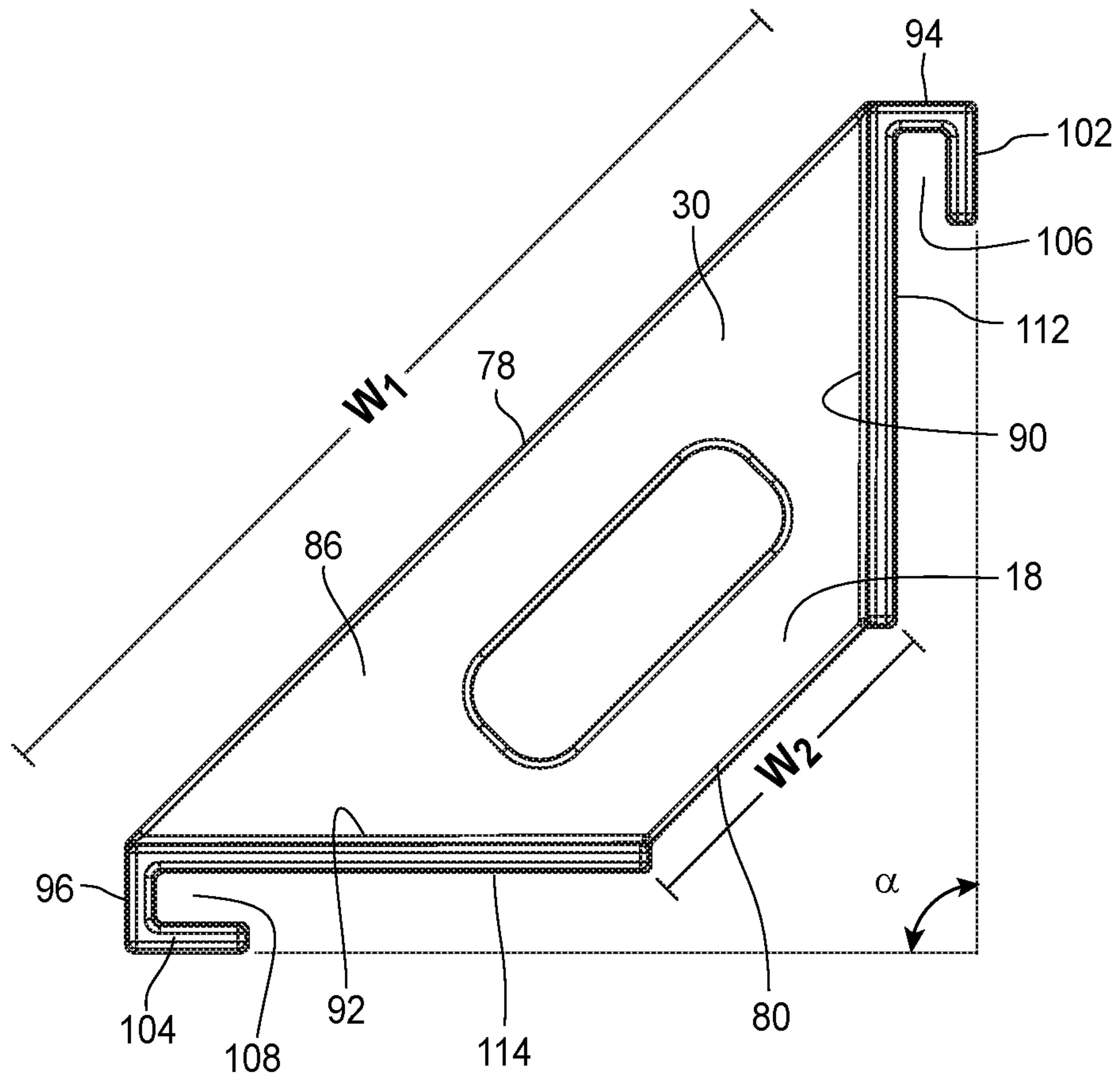


FIG. 5

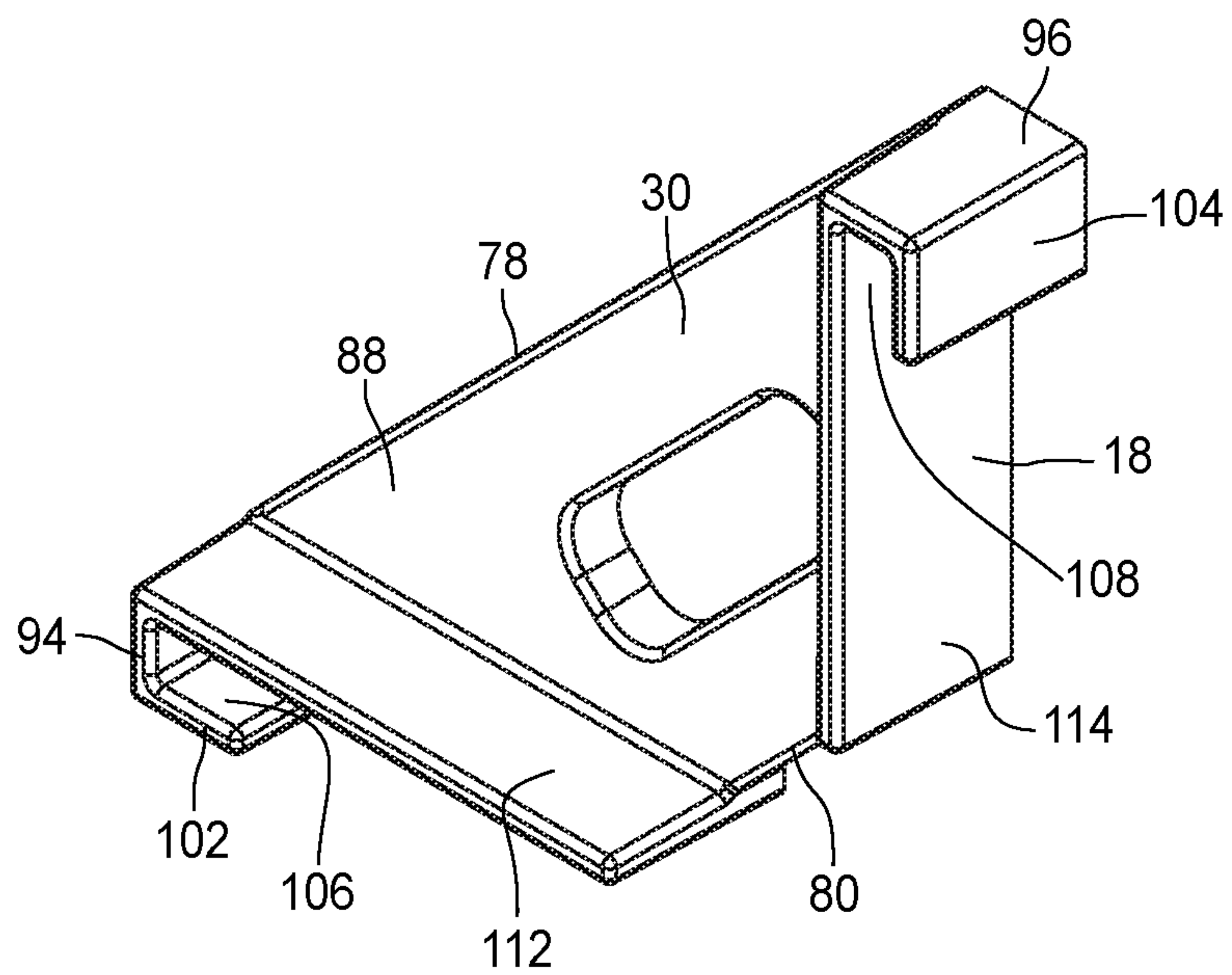


FIG. 6

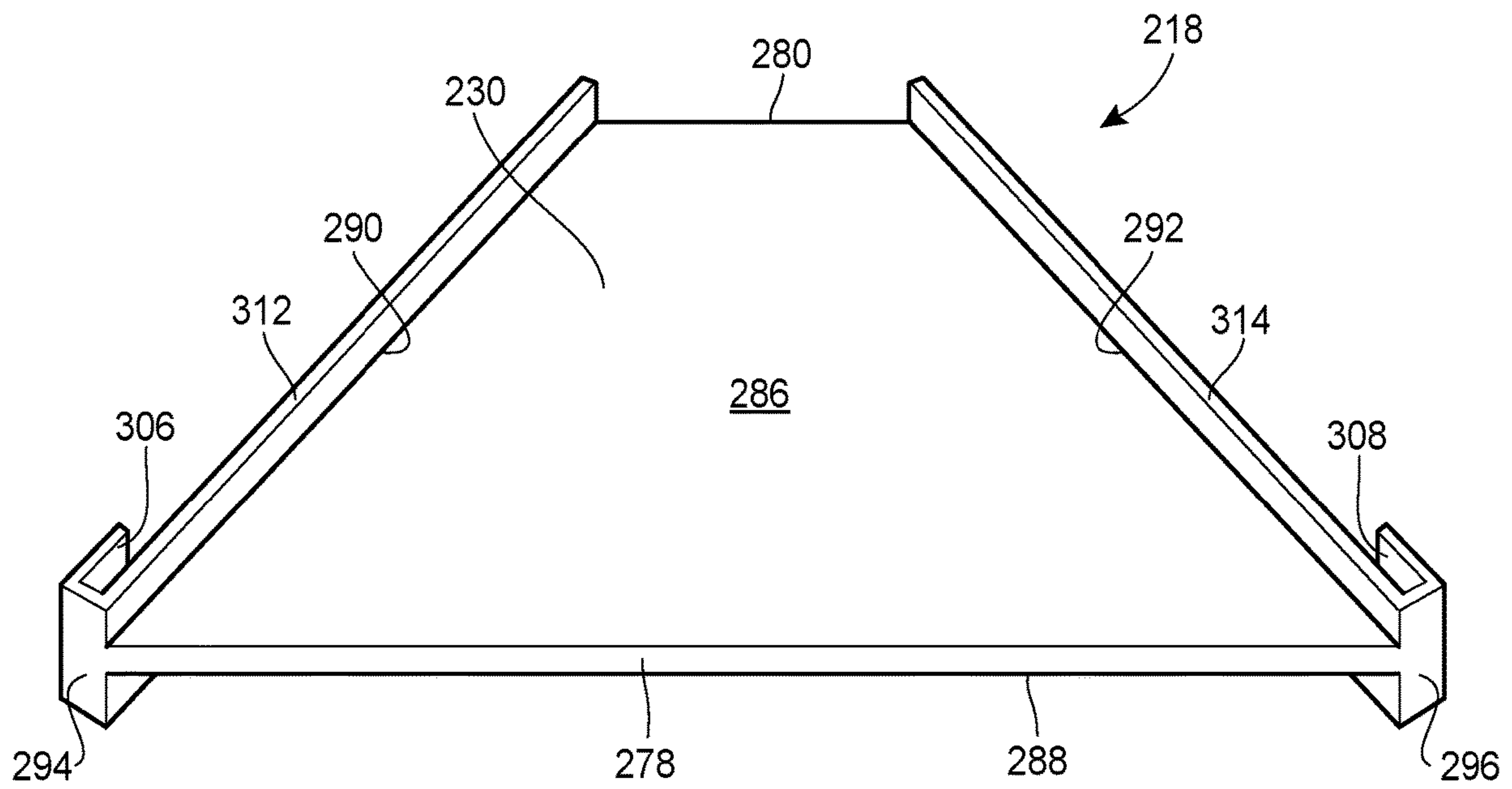


FIG. 7

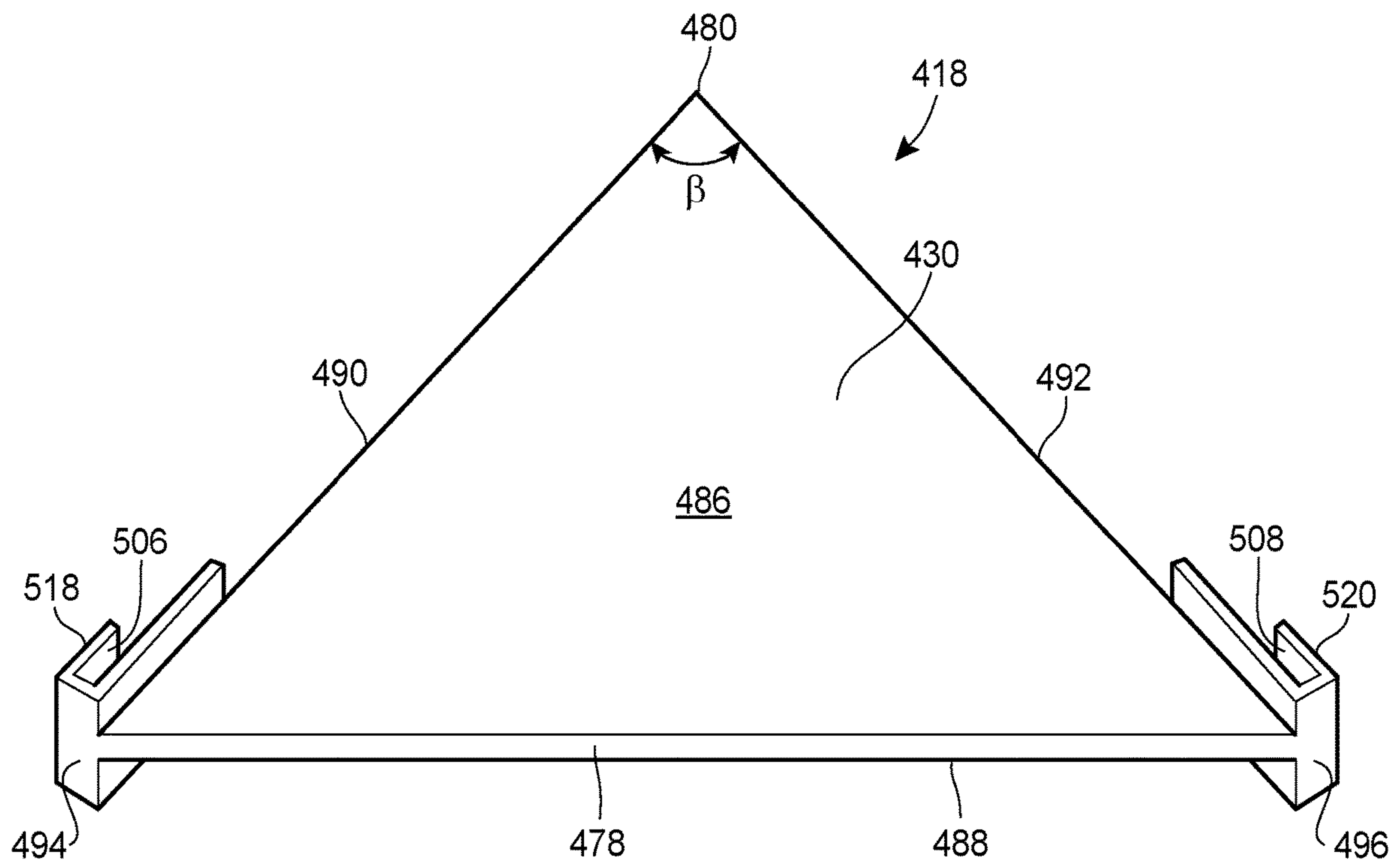


FIG. 8

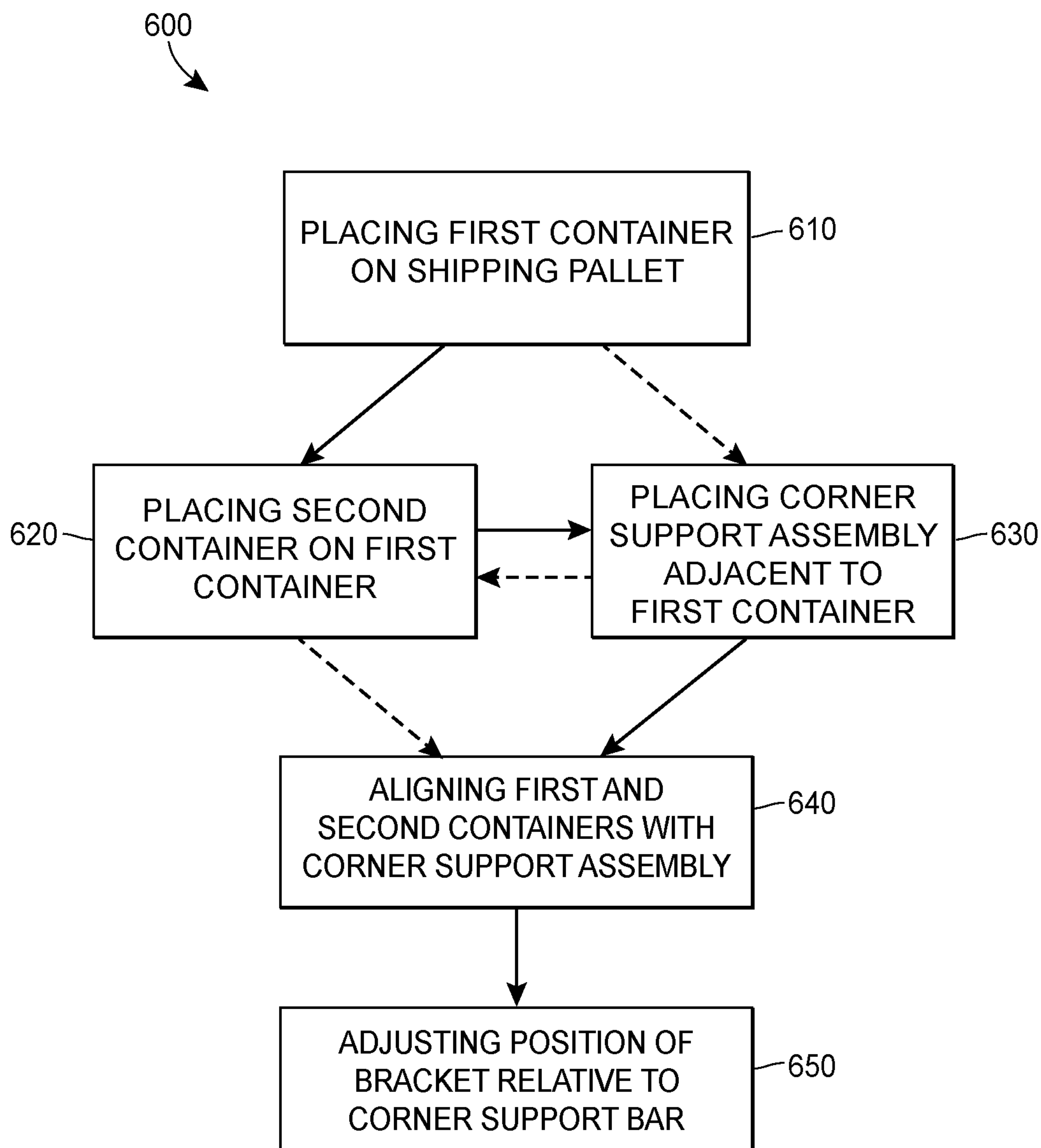


FIG. 9

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CORNER SUPPORT ASSEMBLY

FIELD OF DISCLOSURE

This disclosure relates to a support bracket for a stack of containers, and more particularly, to a corner support assembly for aligning and supporting a stack of containers.

BACKGROUND

Current methods for packaging and shipping a plurality of containers can produce significant material waste and can include many processing steps before a shipment is ready to ship. However, consumers are expecting to pay less for shipping costs, though the costs associated with shipping related to materials and labor costs generally remain unchanged. To package and ship a stack of containers, a typical process includes first stacking the containers onto a pallet, wrapping the stack with plastic sheeting (e.g., plastic stretch wrap), and inserting corner bars between the stack and the plastic sheeting before the pallet supporting the stack of containers is moved. The corner bars are used to keep the stack of containers in alignment so that the pallet may be moved without the containers moving significantly relative to each other. The corner brackets are kept against the stack of containers by the plastic sheeting, and the entire stack may be shrink wrapped before shipping. When the pallet is unloaded, the shrink wrap and plastic sheeting are often discarded and cannot be used again.

SUMMARY

In accordance with one or more exemplary aspects, a corner support assembly and/or method for stacking containers using a corner support assembly may provide a reusable and resilient apparatus for aligning stacked containers for packaging, maintaining alignment of the stacked containers during shipping, and/or protecting the containers from damage caused by clamp trucks, fork lifts, and other external forces. A corner support assembly disclosed herein includes a corner support bracket and a corner support bar. The corner support bracket is slidably coupled to the corner support bar and together form a corner support assembly that is adapted to attach to a corner of a stack of containers. One exemplary assembly may be placed at each corner of a stack of containers so that each corner of the stack is supported and aligned on the pallet during packaging and shipping.

In accordance with a first exemplary aspect, a corner support assembly for supporting a stack of containers may include a bar defining a corner and having a first end, a second end, and an interior surface. A bracket may be operatively coupled to the corner support bar. The bracket may include a front end spaced away from the bar and a back end facing the interior surface of the bar. The back end of the bracket may be disposed adjacent to the interior surface of the bar. The bracket may be disposed between the first end and the second end of the bar and may be oriented substantially perpendicular to the bar.

In accordance with a second exemplary aspect, a method of stacking containers using a corner support assembly may include placing a first container on a support surface. The first container may have a top surface, a bottom surface, and a corner. The bottom surface may be parallel to the support surface. The method may include placing a corner support assembly adjacent to the first container. The corner support assembly may include a bracket and a bar including a first end, a second end, and an interior side facing the corner of

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the first container. The bracket may be operatively coupled to the bar and may include a platform having a first surface and a second surface opposite the first surface. The second surface of the platform may be adjacent to the top surface of the first container.

In accordance with a third exemplary aspect, a corner support assembly for supporting a stack of containers may include a bar with a first arm, a second arm, and a corner connecting the first arm and the second arm at a right angle.

The first arm, second arm, and corner may extend from a first end of the bar to a second end of the bar and may define an interior surface of the bar. A bracket may be slidably coupled to the first arm and the second arm of the bar. The bracket may include a platform having a first surface, a second surface, a back end, and a front end. The back end may be adjacent to the interior surface of the bar. The platform may be oriented substantially perpendicular relative to the bar. A first mount of the bracket may be proximally located to the front end of the platform. The first mount may be shaped to receive a portion of the first arm of the bar. A second mount may be proximally located to the front end of the platform. The second mount may be shaped to receive a portion of the second arm of the bar.

In accordance with any one or more of the foregoing first, second, or third exemplary aspects, a corner support assembly and a method of stacking containers using a corner support assembly may further include any one or more of the following preferred forms.

In a preferred form, the bar may include a first arm, a second arm, and the corner connecting the first and second arms.

In a preferred form, the bracket may be slidably coupled to the first arm and the second arm of the bar.

In a preferred form, the bracket may include a mount slidably coupled to the bar.

In a preferred form, the bracket may include a first side edge and a second side edge extending between the back end to the front end of the bracket.

In a preferred form, the first side edge may be oriented approximately 90 degrees relative to the second side edge.

In a preferred form, the mount may define a first hook disposed at the front end of the first side edge and a second hook disposed at the front end of the second side edge of the bracket.

In a preferred form, the bar may include an exterior surface opposite the interior surface.

In a preferred form, each of the first and second hooks may curve outwardly and away from the bracket and may include a portion that is disposed adjacent to the exterior surface of the bar when the bracket is operatively coupled to the bar.

In a preferred form, the mount of the bracket may define a channel disposed at the front end of the bracket.

In a preferred form, the channel may be sized to receive a portion of one of the first and second arms of the bar.

In a preferred form, the bracket may define a platform extending between the front end and the back end of the bracket and substantially perpendicular to the bar.

In a preferred form, at least one of the first and second side edges may extend perpendicularly relative to the platform to define a side wall.

In a preferred form, the front end of the bracket may have a first width and the back end of the bracket may have a second width.

In a preferred form, the first width may be greater than the second width.

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In a preferred form, the back end of the bracket may be spaced away from the interior surface of the bar.

In a preferred form, the method may include placing a second container on the top surface of the first container.

In a preferred form, the second container may have a top surface, a bottom surface, and a corner.

In a preferred form, the bottom surface of the second container may be adjacent to the top surface of the first container and the corner of the second container may face the interior side of the bar.

In a preferred form, placing a corner support assembly adjacent to the first container may include inserting a front end of the bracket between the first container and the second container such that the first surface of the platform is adjacent to the bottom surface of the second container and the second surface of the platform is adjacent to the top surface of the first container.

In a preferred form, inserting the front end of the bracket between the first container and the second container may include placing the bracket on the top surface of the first container before placing the second container on the top surface of the first container.

In a preferred form, the method may include aligning the corner of the second container with the corner of the first container.

In a preferred form, the method may include adjusting a position of the bracket relative to the bar by sliding the bracket relative to the first end and the second end of the bar.

In a preferred form, the method may include placing a second corner support bracket assembly adjacent to the first container at a different corner of the first container.

In a preferred form, each of the first and second mounts may define a U-shaped channel to slidably receive a distal end of one of the first and second arms of the bar.

In a preferred form, a first side wall and a second side wall may be adjacent to the platform and may extend between the back end and the front end of the platform.

In a preferred form, the first side wall may define the first mount and the second side wall may define the second mount.

In a preferred form, the first side wall of the bracket may be parallel with the first arm of the bar. The second side wall of the bracket may be parallel with the second arm of the bar.

In a preferred form, the platform may be integrally formed with the first mount and the second mount.

In a preferred form, the back end of the platform may be spaced away from the interior surface of the bar.

In a preferred form, each mount of the first and second mounts may include a first surface and a second surface.

In a preferred form, the first surface of each of the first and second mounts may be coplanar with the first surface of the platform.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a partial perspective view of a corner support assembly including a first exemplary corner support bracket assembled in accordance with the teachings of the present disclosure;

FIG. 2 is a perspective view of a plurality of corner support assemblies of FIG. 1 coupled to a stack of containers;

FIG. 3 is a partial, magnified view of a corner support assembly of FIG. 2;

FIG. 4 is a front perspective view of the first exemplary corner support bracket of the corner support assembly of FIG. 1;

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FIG. 5 is a top view of the corner support bracket of FIG. 4;

FIG. 6 is a bottom perspective view of the corner support bracket of FIG. 4;

FIG. 7 is a second exemplary corner support bracket assembled in accordance with the teachings of the present disclosure;

FIG. 8 is a third exemplary corner support bracket assembled in accordance with the teachings of the present disclosure; and

FIG. 9 is a schematic diagram of one example of a process or method for stacking containers using a corner support bracket assembly according to the teachings of the present disclosure.

DETAILED DESCRIPTION

A corner support assembly **10** of the present disclosure is adapted to provide structural support, corner alignment, and corner protection to a stack of containers without requiring the stack of containers to be first secured by plastic sheeting. The example corner support assembly **10** may be easily coupled (e.g., attached, inserted, placed into) to a stack of containers without requiring the entire stack to be wrapped in plastic sheeting to hold the corner support assembly in place. A plurality of corner support assemblies can be used together to support a stack of containers at each corner of a four-cornered stack of containers. When supported at each corner, the stack of containers is less likely to shift out of alignment and tip over during packaging and shipping. The corner support assembly **10** facilitates the packaging and shipping process by reducing the number of steps needed to assemble, package, and ship a stack of containers. It may even be possible to avoid using any plastic wrap, since the corner support assembly **10** will tend to stay in place without wrapping for some types of stacks, though plastic wrapping provides additional stability. The wrap may be standard plastic sheeting that adheres to itself, or can be “shrink-wrap” that is later heated to give the stack additional strength and stability.

FIG. 1 illustrates an example corner support assembly **10** constructed in accordance with the teachings of the present disclosure. The assembly **10** includes a vertically-oriented corner support bar **14** and a bracket **18** operatively coupled and substantially perpendicular to the corner support bar **14**. The bracket **18** is disposed within a corner **22** defined by the bar **14** and sits adjacent to an interior side **26** of the bar **14**. The bracket **18** includes a platform **30** which is adapted to slide in between two containers of a stack of containers. The bar **14** of the assembly **10** extends between a first end **34** and a second end **38**. The bar **14** includes a first arm **46**, a second arm **48**, and a joint or corner portion **22** connecting the first and second arms **46**, **48**. Each arm **46**, **48** is adapted to face and/or provide a rigid support to a different side of a corner of a container. Referring to FIGS. 1 and 2, the interior side **26** of the bar **14** is configured to face a corner of a stack of containers **52**, and an exterior side **28** of the bar **14** is configured to face away from the stack of containers **52**.

In FIG. 2, the corner support assembly **10** is placed against a stack of containers **52**, which is supported by a support surface **54**, which is a shipping pallet in the illustrated example. The corner support assembly **10** is used with other similar corner support assemblies **12** and **16** to support each corner of the stack of containers **52**. The corner support bar **14** of the corner support assembly **10** is vertically aligned with a corner **56** of the stack **52** and the bracket **18** is disposed between a first container **60** and a second container

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64 of the stack 52. Similarly, second and third corner support assemblies 12 and 16 are attached to second and third corners 66 and 68 of the stack of containers 52. While not shown in FIG. 2, a fourth corner assembly may be attached to a fourth corner 70 of the stack 52.

Referring particularly to the first corner assembly 10, the bar 14 is suspended above the shipping pallet 54 by the corner bracket 18, which is wedged in between first and second containers 60, 64. When the corner support assembly 10 is attached to the stack of containers 52, the bar 14 supports the corner 56 of the stacked containers 52, keeping the containers 52 in alignment (e.g., stacked on top of another) and from shifting or sliding relative to one another.

In the magnified view of FIG. 3, the platform 30 of the bracket 18 is disposed between the first container 60 and the second container 64 such that the vertically-oriented bar 14 is positioned adjacent to corners 72, 74 of the first and second containers 60, 64, respectively. The bracket 18 includes a front end 78 placed between first and second containers 60, 64 and a back end 80 facing the corner joint 22 of the bar 14. The second container 64 is not aligned with the first container 60 in FIG. 3 to illustrate the placement of the platform 30 of the bracket 18 relative to the first container 60 and the second container 64. The first container 60 has a top surface 118 and a bottom surface 120 that are parallel to a flat receiving surface of the shipping pallet 54. The second container 64 includes a top surface 122 and a parallel bottom surface 124. As shown in FIG. 3, the bottom surface 124 of the second container 64 is adjacent to the top surface 118 of the first container 60.

The corner 72 of the first container 60 abuts against the interior side 26 of the bar 14, but is not directly contacting the corner 74 of the second container 64 stacked above the first container 60. The weight of the second container 64 imparted on to the platform 30 of the bracket 18 and/or friction between the platform 30 and the first and second containers 60, 64 tend to keep the corner support assembly 10 in place within and against the stack 52.

The bracket 18 is spaced away from the joint 22 of the bar 14 by a gap G between the joint 22 of the bar 14 and the back end 80 of the bracket 18. The gap G provides space between the two stacked containers 60 and 64 in case the corners 72, 74 of the containers 60, 64 are dented or otherwise deformed. The gap G provides room for the containers at the corners where there might be some deformation in the container structure.

According to the teachings of the present disclosure, the bracket 18 of the corner support assembly 10 is adapted to slidably couple to the support bar 14 while maintaining its perpendicular orientation relative to the bar 14. As shown in FIGS. 4-6, the first exemplary bracket 18 includes a front end 78, a back end 80, and the platform 30, which extends from the back end 80 to the front end 78. The back end 80 of the bracket 18 is positioned adjacent to the interior side 26 of the bar 14 and is spaced away from the bar 14 by the gap G. The bracket 18 also includes a first surface 86, a second surface 88, a first side edge 90, and a second side edge 92. Each side edge 90, 92 is adjacent to the platform 30 and each side edge 90, 92 extends between the back end 80 to the front end 78 of the bracket 18. The first side edge 90 is oriented at an angle α that is approximately 90 degrees, but may be less than or greater than 90 degrees. In one version, the angle α can be between 70 degrees and 120 degrees and may be based on the angle of the joint 22 of the bar 18.

Each side edge of the first and second side edges 90, 92 includes a mount 94, 96, which is in the form of a mounting

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hook disposed at the front end 78 of the bracket 18. Each mounting hook 94, 96 of the first and second side edges 90, 92 protrudes from the platform 30 such that a portion 102, 104 of each mounting hook 94, 96 wraps around the edges of each arm 46, 48 of the bar 14 so that each hook 94, 96 is partially disposed adjacent to the exterior side 28 of the corner support bar 14 when the bracket 18 is attached to the bar 14. Each mounting hook 94, 96 of the bracket 18 is slidably coupled to the first arm 46 and the second arm 48, respectively, of the corner support bar 14. A U-shaped channel 106, 108 is defined by each mounting hook 94, 96 and is sized to receive a portion of one of the first and second arms 46, 48 of the corner support bar 14. In other examples, the bracket 18 may include only one mounting hook that slidably couples the bracket 18 to the bar 14.

As shown in FIG. 5, the front end 78 of the bracket 18 has a first width W1 and the back end 80 of the bracket 18 has a second width W2 where the first width W1 is greater than the second width W2. The different widths W1, W2 of the bracket 18 define a trapezoidal shape of the platform 30. However, in other examples, the platform 30 may have a triangular or different-shaped support surface.

The mounting hooks 94, 96 may be coupled to the corner support bar 14 by a friction fit, such that the bracket 18 may slide in a vertical direction A (FIGS. 1 and 3) relative the bar 14 when a user applies a force that overcomes the force of friction between the bar 14 and the bracket 18. In other examples, the bracket 18 may include one or more protruding tabs that fit within a plurality of vertically positioned apertures 110 (FIG. 1) formed in the corner support bar 14. To move the bracket 18 relative to the bar 14, the protruding tabs are aligned with the apertures 110 of the corner support bar 14 and snap-fit into place. In yet another example, the bracket 18 may be mounted to the bar by a magnetic coupling.

In FIG. 6, first and second side walls 112, 114 extend axially away from the second surface 88 of the bracket 18 at the first and second side edges 90, 92, respectively. The first surface 86 of the platform 30 is coplanar with a top surface of the first and second side walls 112, 114 (FIG. 4). The side walls 112, 114 extend the length of each side edge 90, 92 of the bracket 18. The first and second side walls 112, 114 are arranged to face the interior side 26 of the first and second arms 46, 48 of the corner support bar 14 when the bracket 18 is coupled to the support bar 14. In this example, the first side wall 112 of the bracket 18 is parallel with the first arm 46 of the bar 14, and the second side wall 114 of the bracket 18 is parallel with the second arm 48 of the bar 14. In one example, each side wall 112, 114 is sized and shaped to engage the surface of the interior side 26 of the bar 14. The side walls 112, 114 provide additional stability to the bracket 18 so that the bracket 18 does not move or turn relative to the corner support bar 14 when the stack of containers 52 is moved. In other examples, the first and second sides edges 90, 92 may extend axially away from at least one of the first and second surfaces 86, 88 of the platform 30.

In FIG. 7 a second exemplary bracket 218 is constructed in accordance with the teachings of the present disclosure. The second exemplary bracket 218 is similar to the first exemplary bracket 18 described above, except that the second exemplary bracket 218 includes rectangular members 312, 314 (i.e., first and second side walls) that extend from both first and second surfaces 286, 288 of a platform 230. Elements of the bracket 218 in FIG. 7 which are similar to the elements of the first exemplary bracket 18 are designated by the same reference numeral, incremented by 200.

A description of many of these elements is abbreviated or even eliminated in the interest of brevity.

The bracket **218** includes a first side edge **290** and a second side edge **292** adjacent to the platform **230**, and the side edges **290**, **292** extend from a back end **280** of the bracket **218** to a front end **278** of the bracket **218**. First and second side walls **312**, **314** extend away from a first surface **286** of the platform **230** and from a second surface **288** of the platform **230** at the side edges **290**, **292**. The first and second side walls **312**, **314** are rectangular members and may be integrally formed with the platform **230** or may be formed separately and then attached to the platform **230** by welding or other equally suitable method. The platform **230** is perpendicularly disposed relative to each side wall **312**, **314** and is centrally disposed relative to a height of the side walls **312**, **314**.

In FIG. **8**, a third exemplary bracket **418** is constructed in accordance with the teachings of the present disclosure. The third exemplary bracket **418** is similar to the second exemplary bracket **218** described above, except that a platform **430** is triangular and is configured to mount to the support bar **14** in a different manner. Elements of the third exemplary bracket **418** in FIG. **8** which are similar to the elements of the first exemplary bracket **18** are designated by the same reference numeral, incremented by **400**. A description of many of these elements is abbreviated or even eliminated in the interest of brevity.

The platform **430** of the third exemplary bracket **418** includes a first surface **486** and a second surface **488**, a first edge **490**, and a second edge **492**. Unlike the first and second exemplary brackets **18**, **218** illustrated in FIGS. **1-7**, the third exemplary bracket **418** defines a corner at a back end **480** of the bracket **418**. The corner **480** forms an angle β , which may be 90 degrees relative to first and second edges **490**, **492**. In one version, the corner angle β may be between 70 degrees and 120 degrees. The corner **480** may be sized to correspond with an interior joint or corner portion **22** of the support bar **14**.

The bracket **418** includes a first side flange **518** and a second side flange **520** disposed at a front end **478** of the bracket **418** to mount the bracket **418** to the support bar **14**. The first side flange **518** defines a U-shaped channel **506** sized to receive a portion, and specifically a distal end **46A**, of the first arm **46** of the bar **14**. The second side flange **520** defines a U-shaped channel **508** sized to receive a portion, and specifically a distal end **48A** of the second arm **48** of the bar **14**. The first and second side flanges **518**, **520** extend axially away from the first surface **486** of the platform **430** and the second surface **488** of the platform **430**. Unlike the side walls **312**, **314** of the second exemplary bracket **218**, the flanges **518**, **520** of the third exemplary bracket **418** do not extend the entire length of each side edge **490**, **492** of the bracket **418**. The flanges **518**, **520** may be attached to the bracket **418** by welding, adhesive, or other suitable methods, or may be integrally formed with the platform **430** of the bracket **418**. In some examples, an interior surface of the each flange **518**, **520** may be coated with a material to help grip the arms **46**, **48** of the support bar **14** when the bracket **418** is coupled to the bar **14**. In other examples, the flanges **518**, **520** may be a flexible or deformable material and are configured to slightly change shape to grip a variety of shapes and sizes of the support bar **14**.

FIG. **9** is a diagram of an example method or process **600** according to the teachings of the present disclosure. The method or process **600** schematically depicted in FIG. **9** is a method or process of stacking containers using a corner support assembly, such as the corner support assembly **10**

illustrated in FIGS. **1-3**. The method **600** includes a step **610** of placing a first container **60** on a support surface (e.g., a shipping pallet **54**), the first container **60** has a top surface **118**, a bottom surface **120**, and a corner **72**, where the bottom surface **120** is parallel to a flat receiving surface of the shipping pallet **54**. The first container **60** is placed directly on the shipping pallet **54** in FIG. **2**, but in another example, the first container **60** may be placed on a different container on the shipping pallet **54**. The method **600** may further include a step **620** of placing a second container **64** on the top surface **118** of the first container **60**. The second container **64** includes a top surface **122**, a bottom surface **124**, and at least one corner **74**. The bottom surface **124** of the second container **64** is adjacent to the top surface **118** of the first container **60**. The method or process **600** also includes a step **630** of placing a corner support assembly **10** adjacent to the first container **60**. The corner support assembly **10** includes one of the first, second, or third exemplary brackets **18**, **218**, **418** and a corner support bar **14**, where the corner support bar **14** includes a first end **34**, a second end **38**, an interior side **26**, and an exterior side **28**. In this exemplary method **600**, the first exemplary bracket **18** will be used to describe the various method steps, however, any of the exemplary brackets **18**, **218**, **418** may be used. The bracket **18** is operatively coupled to the corner support bar **14** and includes the platform **30** having the first surface **86** and the second surface **88**. The second surface **88** of the platform **30**, is adjacent to the top surface **118** of the first container **60** and the interior side **26** of the corner support bar **14** is adjacent to the corner **72** of the first container **60**.

The step **630** of placing the corner support assembly **10** adjacent to the first container **60** may include inserting the platform **30** of the bracket **18** after the second container **64** is placed on top of the first container **60** of the stack of containers **52**. The platform **30** of the bracket **18** is placed in between the first container **60** and the second container **64** so that the first surface **86** of the platform **30** is adjacent to the bottom surface **124** of the second container **64** and the second surface **88** of the platform **30** is adjacent to the top surface **118** of the first container **60**. More particularly, the platform **30** may be inserted between the corner **72** of the first container **60** and the corner **74** of the second container **64**. Alternatively, the method of **600** may include placing the bracket **18** in between the first container **60** and the second container **64** by placing the bracket **18** on the top surface **118** of the first container **60** before placing the second container **64** on the top surface **118** of the first container **60**.

A step **640** of the method **600** may include aligning the first and second containers **60**, **64** with the assembly **10**. This step **640** may include aligning the corner **72** of the first container **60** and the corner **74** of the second container **64** and then placing the interior side **26** of the support bar **14** adjacent to the corner **72** of the first container **60** and the corner **74** of the second container **64**. Further, a step **650** of the method **600** may include adjusting a position of the bracket **18** relative to the corner support bar **14** by sliding the bracket **18** relative to the first end **34** and the second end **38** of the corner support bar **14**. This step **650** may occur before inserting the bracket **18** between the first and second containers **60**, **64**. Moreover, the method **600** may include attaching a second corner support bracket assembly **12** to the stack of containers **52**. The second corner support bracket assembly **12** may be attached to a different corner **66** of the stack of containers **52**. However, in another example, a corner support bracket assembly **12** may be placed vertically above the first corner support bracket assembly **10** at the same corner **56** of the stack **52**. As shown in FIG. **2**, the

second corner 66 may be defined by two different containers. However, in another example, the second corner 66 may be defined by the same first and second containers 60, 64.

Using the corner support assembly 10 of the present disclosure in the packaging and shipping process may help reduce waste associated with packaging and shipping. To ensure the stack can be moved and transported without the individual containers shifting relative to one another, the corner support assembly 10 should be placed between containers to maintain the alignment of the stack 52 during each step of packaging and shipping process. The corner support assembly 10 is also reusable and may be adjusted according to different size stacks. The exemplary brackets 18, 218, 418, as described earlier, are slidably coupled relative to the corner support bar 14. Each of the exemplary brackets 18, 218, 418 may be inserted first between two containers 60, 64 of the stack 52 and the support bar 14 may be subsequently adjusted by sliding the support bar 14 in the vertical direction relative to the bracket 18. Alternatively, a user may attach multiple brackets to a single support bar 14 prior to attaching the assembly 10 to the stack of containers 52 for additional support. The position of the bracket 18, 218, 418 relative to the support bar 14 may be adjusted to account for changes in the stack 52, e.g., containers are removed or added to the stack 52. The corner support bar 14 is shaped to form an extruded right-angle bar. In the present example, the corner support bar 14 forms a right-angle to abut against a stack of rectangular containers 52. However, the support bar 14 may be shaped to abut against an irregular shaped stack, for example, a plurality of containers stacked in a triangular column. In this example, the corner support bar 14 may be shaped to provide an angle to fit a triangular corner. In yet another example, the interior surface 26 of the support bar 14 may have a radius of curvature to abut against a stacked, rounded column of containers.

The figures and description provided herein depict and describe preferred embodiments of a corner support bracket assembly for purposes of illustration only. One skilled in the art will readily recognize from the foregoing discussion that alternative embodiments of the components illustrated herein may be employed without departing from the principles described herein. Thus, upon reading this disclosure, those of skill in the art will appreciate still additional alternative structural and functional designs of a corner support bracket. Thus, while particular embodiments and applications have been illustrated and described, it is to be understood that the disclosed embodiments are not limited to the precise construction and components disclosed herein. Various modifications, changes and variations, which will be apparent to those skilled in the art, may be made in the arrangement, operation and details of the methods and components disclosed herein without departing from the spirit and scope defined in the appended claims.

What is claimed:

1. A corner support assembly for supporting a stack of containers, the assembly comprising:
 a bar defining a corner and having a first end, a second end, and an interior surface; and
 a bracket operatively coupled to the bar, the bracket including a front end spaced away from the bar and a back end facing the interior surface of the bar;
 wherein the bracket is disposed between the first end and the second end of the bar and oriented substantially perpendicular to the bar;
 wherein the back end of the bracket is spaced from the corner of the bar.

2. The assembly of claim 1, wherein the bar includes a first arm, a second arm, and the corner connecting the first and second arms, wherein the bracket is slidably coupled to the first arm and the second arm of the bar.

3. The assembly of claim 1, wherein the bracket includes a mount slidably coupled to the bar.

4. The assembly of claim 3, wherein the bracket further includes a first side edge and a second side edge, the first and second side edges extending between the back end and the front end of the bracket, the first side edge oriented approximately 90 degrees relative to the second side edge.

5. The assembly of claim 4, wherein the mount defines a first hook disposed at the front end of the first side edge and a second hook disposed at the front end of the second side edge of the bracket.

6. The assembly of claim 5, wherein the bar includes an exterior surface opposite the interior surface, and wherein each of the first and second hooks curves outwardly and away from the bracket and includes a portion that is disposed adjacent to the exterior surface of the bar when the bracket is operatively coupled to the bar.

7. The assembly of claim 4, wherein the bracket defines a platform extending between the front end and the back end of the bracket and oriented substantially perpendicular to the bar.

8. The assembly of claim 7, wherein at least one of the first and second side edges extends perpendicularly relative to the platform to define a side wall.

9. The assembly of claim 3, wherein the mount of the bracket defines a channel disposed at the front end of the bracket, the channel sized to receive a portion of one of the first and second arms of the bar.

10. The assembly of claim 3, wherein the mount is spaced from the corner of the bar.

11. The assembly of claim 1, wherein the front end of the bracket has a first width and the back end of the bracket has a second width, the first width being greater than the second width.

12. A method of stacking containers using a corner support assembly, the method comprising:

placing a first container on a support surface, the first container having a top surface, a bottom surface, and a corner, the bottom surface parallel to the support surface; and

placing a corner support assembly adjacent to the first container, the corner support assembly including a bracket and a bar, the bar including a first end, a second end, and an interior side defining a joint facing the corner of the first container, the bracket operatively coupled to the bar and including a platform having a first surface, a second surface opposite the first surface, a front end, and a back end opposite the front end, the back end spaced from the joint of the bar and the second surface of the platform adjacent to the top surface of the first container.

13. The method of claim 12, further comprising placing a second container on the top surface of the first container, the second container having a top surface, a bottom surface, and a corner, the bottom surface of the second container adjacent to the top surface of the first container and the corner of the second container facing the interior side of the bar.

14. The method of claim 13, wherein placing a corner support assembly adjacent to the first container includes inserting a front end of the bracket between the first container and the second container such that the first surface of the platform is adjacent to the bottom surface of the second

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container and the second surface of the platform is adjacent to the top surface of the first container.

15. The method of claim **14**, wherein inserting the front end of the bracket between the first container and the second container includes placing the bracket on the top surface of the first container before placing the second container on the top surface of the first container.

16. The method of claim **12**, further comprising adjusting a position of the bracket relative to the bar by sliding the bracket relative to the first end and the second end of the bar.

17. The method of claim **12**, further comprising placing a second corner support bracket assembly adjacent to the first container at a different corner of the first container.

18. A corner support assembly for supporting a stack of containers, the assembly comprising:

a bar including a first arm, a second arm, and a joint connecting the first arm and the second arm at a right angle, wherein the first arm, second arm, and joint extend from a first end of the bar to a second end of the bar and define an interior surface of the bar; and a bracket slidably coupled to the first arm and the second arm of the bar, the bracket comprising:

a platform having a first surface, a second surface, a back end, and a front end, wherein the back end is adjacent to the interior surface of the bar and spaced from the joint, the platform oriented substantially perpendicular relative to the bar;

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a first mount proximally located to the front end of the platform, the first mount shaped to receive a portion of the first arm of the bar; and

a second mount proximally located to the front end of the platform, the second mount shaped to receive a portion of the second arm of the bar.

19. The corner support assembly of claim **18**, wherein each of the first and second mounts defines a U-shaped channel to slidably receive a distal end of one of the first and second arms of the bar.

20. The corner support assembly of claim **18**, further including a first side wall and a second side wall adjacent to the platform and extending between the back end and the front end of the platform, the first side wall defining the first mount and the second side wall defining the second mount.

21. The corner support assembly of claim **20**, wherein the first side wall of the bracket is parallel with the first arm of the bar, and the second side wall of the bracket is parallel with the second arm of the bar.

22. The corner support assembly of claim **18**, wherein the platform is integrally formed with the first mount and the second mount.

23. The corner support assembly of claim **18**, wherein the first and second mounts are spaced from the joint of the bar.

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